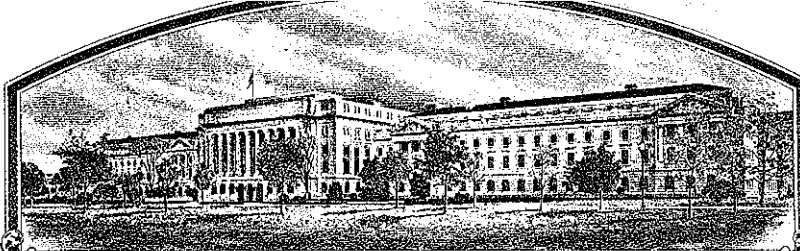


No.

7800089



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Ferry-Morse Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (7 U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Calsweet'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 21st day of December in the year of our Lord one thousand nine hundred and seventy-eight

Attest:

*Edmund H. [Signature]*  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*B. B. [Signature]*  
Secretary of Agriculture

## APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION <b>Calsweet</b>	2. KIND NAME <b>Head Lettuce</b>	FOR OFFICIAL USE ONLY PV NUMBER <b>7800089</b>	
3. GENUS AND SPECIES NAME <b>Lactuca sativa</b>	4. FAMILY NAME (Botanical) <b>Compositae</b>	FILING DATE <b>6-19-78</b>	TIME <b>2:30</b> <b>P.M.</b>
6. NAME OF APPLICANT(S) <b>FERRY-MORSE SEED COMPANY Dr. George C. Emery, Breeder</b>	5. DATE OF DETERMINATION <b>June, 1973</b>	FEE RECEIVED <b>\$250.00</b>	BALANCE DUE \$
		<b>\$250.00</b>	\$
		<b>\$250.00</b>	<b>10-16-78</b>
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>P. O. Box 100 111 Ferry-Morse Way Mountain View, California 94042</b>	8. TELEPHONE AREA CODE AND NUMBER <b>(415) 967-6973</b>	11. DATE OF INCORPORATION <b>7 April 1969</b>
12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers: <b>Mr. D. Van Brondyke, Executive Vice President Ferry-Morse Seed Company 111 Ferry-Morse Way, P. O. Box 100 Mountain View, California 94042</b>			

## 13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Botanical Description of the Variety
- ☒ 13C. Exhibit C, Objective Description of the Variety
- ☒ 13D. Exhibit D, Data Indicative of Novelty
- ☒ 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B. and 14C. below.) ☐ YES ☒ NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? ☐ YES ☒ NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

2 June 1978  
(DATE)

Ferry-Morse Seed Company  
by: [Signature]  
Executive Vice President

FORM GR-470 (REVERSE)

INSTRUCTIONS

**GENERAL:** Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

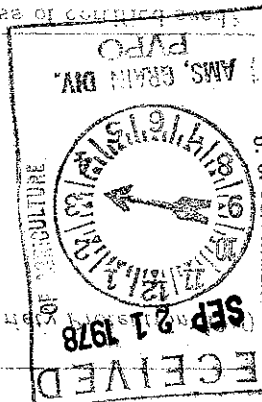
13a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

13b First, give many special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.



1. NAME OF APPLICANT (Last, first, middle initial)		2. DATE OF DETERMINATION		3. KIND NAME	
4. ADDRESS (Street, city, state, zip)		5. FAMILY NAME (Last name)		6. KIND NAME	
7. PHONE AND PRESENT NAME		8. COMPOSITE		9. HEAD REFERENCE	
10. DESIGNATION		11. ABBREVIATED NAME OF COMPOUND		12. KIND NAME	
13. INSTRUCTIONS: See reverse		14. FEE RECEIVED		15. BALANCE DUE	
16. FEE RECEIVED		17. BALANCE DUE		18. FEE RECEIVED	
19. BALANCE DUE		20. FEE RECEIVED		21. BALANCE DUE	
22. FEE RECEIVED		23. BALANCE DUE		24. FEE RECEIVED	
25. BALANCE DUE		26. FEE RECEIVED		27. BALANCE DUE	
28. FEE RECEIVED		29. BALANCE DUE		30. FEE RECEIVED	
31. BALANCE DUE		32. FEE RECEIVED		33. BALANCE DUE	
34. FEE RECEIVED		35. BALANCE DUE		36. FEE RECEIVED	
37. BALANCE DUE		38. FEE RECEIVED		39. BALANCE DUE	
40. FEE RECEIVED		41. BALANCE DUE		42. FEE RECEIVED	
43. BALANCE DUE		44. FEE RECEIVED		45. BALANCE DUE	
46. FEE RECEIVED		47. BALANCE DUE		48. FEE RECEIVED	
49. BALANCE DUE		50. FEE RECEIVED		51. BALANCE DUE	
52. FEE RECEIVED		53. BALANCE DUE		54. FEE RECEIVED	
55. BALANCE DUE		56. FEE RECEIVED		57. BALANCE DUE	
58. FEE RECEIVED		59. BALANCE DUE		60. FEE RECEIVED	
61. BALANCE DUE		62. FEE RECEIVED		63. BALANCE DUE	
64. FEE RECEIVED		65. BALANCE DUE		66. FEE RECEIVED	
67. BALANCE DUE		68. FEE RECEIVED		69. BALANCE DUE	
70. FEE RECEIVED		71. BALANCE DUE		72. FEE RECEIVED	
73. BALANCE DUE		74. FEE RECEIVED		75. BALANCE DUE	
76. FEE RECEIVED		77. BALANCE DUE		78. FEE RECEIVED	
79. BALANCE DUE		80. FEE RECEIVED		81. BALANCE DUE	
82. FEE RECEIVED		83. BALANCE DUE		84. FEE RECEIVED	
85. BALANCE DUE		86. FEE RECEIVED		87. BALANCE DUE	
88. FEE RECEIVED		89. BALANCE DUE		90. FEE RECEIVED	
91. BALANCE DUE		92. FEE RECEIVED		93. BALANCE DUE	
94. FEE RECEIVED		95. BALANCE DUE		96. FEE RECEIVED	
97. BALANCE DUE		98. FEE RECEIVED		99. BALANCE DUE	
100. FEE RECEIVED		101. BALANCE DUE		102. FEE RECEIVED	

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

7800089

March 27, 1978

VARIETY: Calsweet (formerly E4217 (formerly 3C-56 (formerly 3C-X9C(A)2(DM)Ms(S)B(DM)Ms(C)Ms)))

EXHIBIT A: Origin and Breeding History of the Variety.

Calsweet was selected by the pedigree method from the cross 3C-X9, (G.L.66A x Calmar).

7/5  
9/22/78  
The cross between Great Lakes 66A x Calmar was made in the greenhouse at San Juan Bautista, California in the early spring of 1968. F<sub>2</sub> seed was obtained from several individual F<sub>1</sub> plants in the San Juan Bautista greenhouse in the summer of 1968. The F<sub>2</sub> progeny of the 3C-X9C F<sub>1</sub> plant planted in the field in El Centro, California in October of 1968 was noted to be segregating for several characteristics. Five single plant selections were made on January 15, 1969, and brought to F<sub>3</sub> seed maturity in the San Juan Bautista greenhouse that spring.

The F<sub>3</sub> seed (3C-X9C(A)2) was planted out in a Downy Mildew test (race common to the Salinas Valley in 1960 and early 1970's) on June 17, 1969, and was found to be segregating 40 resistant plants to 18 susceptible plants.

F<sub>4</sub> seed from several of the Downy-Mildew resistant plants was bulk-massed and planted out in a Salinas Valley, California trial on March 20, 1970. The F<sub>4</sub> bulk-mass row (3C-X9C(A)2(DM)Ms) was noted to be slightly earlier maturing than Calmar with slightly lighter color, smoother heads, and less well-wrapped. The second selection of seven single plant selections made from this row was noted to have an excellent color and a slight Calmar rugoseness.

Eleven plants from the F<sub>5</sub> seed of the Salinas Valley selection, 3C-X9C(A)2(DM)Ms(S)B, were grown out and brought to seed maturity in 1972. The F<sub>6</sub> progeny seed of 4 of these plants was found to be homozygous resistant to the common race of Downy-Mildew in the Salinas Valley; the F<sub>6</sub> seed of these 4 plants was bulk-massed.

The F<sub>6</sub> bulk-massed seed, 3C-X9C(A)2(DM)Ms(S)B(DM)Ms, was grown out in two trials in the Salinas Valley in the late winter and early spring of 1973. In both trials the line rated very well and was considered worthy to be increased as a possible new variety. The line was redesignated 3C-56.

Fifty F<sub>6</sub> plants were tested in the greenhouse and found resistant to the common race of Downy-Mildew; 48 of the DMR plants were maintained free of LMV, brought to seed maturity, and the F<sub>7</sub> seed bulk-massed. This F<sub>7</sub> seed was sent to Australia for a 1974-75 off season increase.

7800089

Variety: Calsweet (continued)

In trials in the spring of 1974, 3C-56 continued to perform well in the Salinas Valley area. The line was given experimental variety status on August 28, 1974, and redesignated E4217.

E4217 rated well in spring trials of 1975 in the Salinas Valley, but was not outstanding in trials during the hot, dry drought year of 1976.

The name Calsweet was submitted as the designation for E4217 on September 8, 1977.

*(continued)*

September 14, 1978

VARIETY: Calsweet (formerly E4217 (formerly 3C-56 (formerly 3C-X9C(A) 2(DM) Ms(S) B(DM) Ms(C) Ms)))

EXHIBIT A: Origin and Breeding History of the Variety.

Addendum: "Type and frequency of variants and evidence of stability".

During the period of seed multiplication and testing from 1973 to 1977, Calsweet was grown out in 12 trials for observation and seed increase purposes. No variant type plants were noted or recorded amongst a total of 810 plants. The variety is considered to segregate no distinct genetic variant types and to be genetically stable for the significant characteristics of the variety.

March 27, 1978

7800089

VARIETY: Calsweet (formerly E4217 (formerly 3C-56 (formerly 3C-X9C(A)2(DM)Ms(S)B(DM)Ms(C)Ms)))

EXHIBIT B: Botanical Description of the Variety:

The white seed of Calsweet germinates rapidly with rapid seedling emergence. Early growth is vigorous. Seed vigor and early growth is generally more vigorous than with Calmar seed.

Best crisp head development for Calsweet is under the cool, coastal conditions of the West Coast. In the Salinas Valley the best head size occurs with March plantings to be harvested in June. Under these conditions Calsweet matures 4 to 5 days ahead of Calmar.

Under increasingly warmer more humid conditions there is an increasing frequency of non-heading, large leafy plants in Calsweet, with head formation being more spirrally, less rounded, butts sloping, and interiors loose. Under high light intensity conditions Calsweet will show sun-burning on outer head leaves.

Calsweet develops large plants with medium large frame leaves (just slightly smaller than Calmar). The medium large frame leaves generally go high and close to the head. The broad leaves of Calsweet are a glossy dark grey-green like the variety Great Lakes, but slightly lighter green than Calmar. The leaf surface is only slightly blistered and wrinkled, much less so than Calmar. The leaf margin undulates and has sinuate indentation. The 1.25 lb. heads are generally rounded with slightly flattened butts, measuring 11 to 12 cm wide and 11 to 12 cm deep. The stem (core) diameter of the butts is medium in width, averaging 2.6 cm. The petioles of the head leaves as they attach to the core are slightly ridged or ribby. The flavor of Calsweet is generally sweet, more so than Calmar. Calsweet is more tolerant to tipburn than Calmar.

The bolting maturity of Calsweet is similar to or slightly later than Montemar, but much later than Calmar.

OBJECTIVE DESCRIPTION OF VARIETY  
(LETTUCE)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)  
FERRY-MORSE SEED COMPANY

Dr. George C. Emery, Breeder  
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

111 Ferry-Morse Way  
P. O. Box 100  
Mountain View, CA 94040

FOR OFFICIAL USE ONLY

PVPO NUMBER 297 - 7800089

VARIETY NAME OR TEMPORARY DESIGNATION

CALSWEET

Place the appropriate number that describes the varietal character of this variety in the boxes below.

PLANT TYPE:

10 = CUTTING (Leaf)	20 = STALK	COS	CRISPHEAD
50 = BUTTERHEAD	60 = LATIN	31 = SELF-CLOSING GROUP	41 = IMPERIAL GROUP
		32 = LOOSE-CLOSING GROUP	42 = GREATLAKE GROUP
			43 = VANGUARD OR VALVERDE GROUP

SEED COLOR:

1 = WHITE 2 = BLACK 3 = YELLOW

ANTHOCYANIN:

1 = ABSENT 2 = PRESENT

LEAF CONTAINING ANTHOCYANIN:

1 = COVERED 2 = SPOTTED 3 = ALONG MARGIN 4 = OTHER (Specify) None

LEAF SURFACE:

1 = SMOOTH 2 = BLISTERED 3 = DULL 4 = GLOSSY 5 = OTHER (Specify)

LEAF MARGIN:

1 = WAVY 2 = CURLED 3 = DENTATE 4 = INCISED 5 = DEEPLY INCISED

LEAF SHAPE:

1 = ROUNDED 2 = POINTED 3 = BROADER THAN LONG 4 = LONGER THAN BROAD 5 = OTHER (Specify)

LEAF COLOR (See Reverse.)

1 = RED 2 = REDDISH-BROWN 3 = YELLOW 4 = YELLOWISH-GREEN 5 = GREYISH-GREEN 6 = BLUE-GREEN 7 = DARK-GREEN 8 = VERY DARK GREEN

HEADS:

1 = SPHERICAL 2 = FLATTENED 3 = ELONGATE 4 = POINTED

PLANT SIZE (See Reverse.)

1 = SMALL 2 = MEDIUM 3 = LARGE

CULTURE:

1 = SUMMER CROP 2 = WINTER CROP 3 = OTHER (Specify) Pacific Coast - Spring

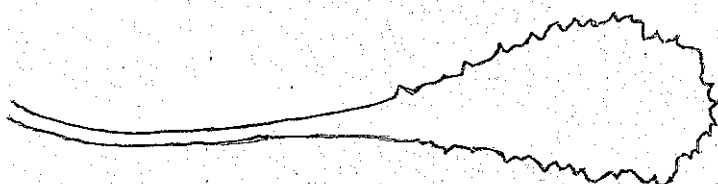
SIZE OF 10-DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C. (Place a zero in first box (i.e. 0 2) when size is 9 mm. or less).

6 5 mm. LENGTH OF SEEDLING 3 0 mm. LENGTH OF COTYLEDON 0 5 mm. WIDTH OF COTYLEDON

DISEASE RESISTANCE TO: (Enter a zero in boxes where there is no specific disease resistance.)

1 = TIPBURN 2 = MOSAIC 3 = DAMPING OFF 4 = DOWNY MILDEW (certain races) 5 = SCLEROTINA ROT 6 = BROWN BLIGHT 7 = OTHER (Specify)

OUTLINE THE FOURTH LEAF (For standardization purposes, the fourth leaf should be taken from a 20-day old plant grown under constant light.)





INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER		NAME OF VARIETY				
Leaf color		Great Lake 66				
Leaf pigmentation		Calmar				
Leaf shape		Calmar				
Plant size		Calmar				
Head size		Calmar				

VARIETY	NO. OF DAYS TO HEAD MATURITY UNDER WINTER CROPPING	LOCATION	NO. OF DAYS TO HEAD MATURITY UNDER SUMMER CROPPING	LOCATION	NO. OF DAYS TO SEED STALK EMERGENCE UNDER SUMMER CROPPING	LOCATION
Submitted	104	Calif. Salinas Valley	83	San Juan Bautista, CA	75	Yuma, Ariz.
Similar	107	"	83	"	80	Yuma, Ariz.
Name of similar variety	Calmar		Calmar		Super 59	

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. C. M. Rodenburg, 1960, Varieties of Lettuce, An International Monograph, Institut voor de Veredeling van Tuinbouwgewassen, Wageningen, Holland.
2. L. L. Morse, 1930, Field Notes on Lettuce, published by Ferry-Morse Seed Co.

LEAF COLOR: Any recognized color fan may be used to determine the leaf color of the described variety. The following lettuce varieties may be used as a guide to identify the eight colors listed on the form.

<u>Color</u>	<u>Variety</u>
1 - Red	"Salad Trim"
2 - Reddish-brown	"Ruby"
3 - Yellow	"Salad Bowl"
4 - Yellowish-green	"Oakleaf"
5 - Greyish-green	"White Boston"
6 - Bluish-green	"Bibb"
7 - Dark-green	"Imperial" group
8 - Very dark green	"Deer Tongue"

PLANT SIZE: The following varieties may be used as a guide to identify the plant type size:

<u>Type</u>	<u>Small</u>	<u>Medium</u>	<u>Large</u>
1 - Cutting (leaf)	Boston-Curled	Prize Head	Black Seeded Simpson
2 - Stalk	Celtuce	--	--
3 - Cos	Express	White Paris	Giant White
4 - Crisphead	Mignonette	Hanson	Malta
5 - Butterhead	Tom Thumb	Hubbard Market	Mammoth Butter
6 - Latin	Sucrino	Creole	Deer Tongue

September 14, 1978

VARIETY: Calsweet (formerly E4217 (formerly 3C-56 (formerly 3C-X9C(A) 2(DM) Ms(S) B(DM) Ms(C) Ms)))

EXHIBIT D: Data Indicative of Novelty.

7800089

Calsweet most closely resembles the variety Calmar. It is distinct from Calmar by having narrower petiole (at the core), narrower core, and a more flattened head (a more shallow head depth).

A. Measurements below were obtained from a planting made November 23, 1976 in a greenhouse held at a minimum 68 degrees Fahrenheit at Columbus, Wisconsin. Measurements of 10 paired comparisons were made February 17 to March 4, 1977

	<u>Calsweet</u>	<u>Calmar</u>	<u><math>\bar{d}</math></u>	<u><math>s_d</math></u>	<u>t</u>	<u>P</u>
1. <u>Petiole width</u> of top head leaf at core (mm) Range (10-23)	15.4 (10-23)	24.4 (13-31)	8.8	2.070	4.25	.005 - .001
2. <u>Core diameter</u> after removal of wrapper leaves (mm) Range (14-22)	17.4 (14-22)	21.3 (19-25)	3.9	0.985	3.96	.005 - .001
3. <u>Head depth</u> from core to top of head (cm) Range (7-11.5)	8.2 (7-11.5)	9.9 (8-12.5)	1.7	0.712	2.38	.05 - .025

B. Measurements below were obtained from 10 paired comparisons from a field planting made in the San Joaquin Valley in California planted November 22, 1976. Measurements were made April 7, 1977.

	<u>Calsweet</u>	<u>Calmar</u>	<u><math>\bar{d}</math></u>	<u><math>s_d</math></u>	<u>t</u>	<u>P</u>
1. <u>Petiole width</u> of top head leaf at core (mm) Range (22-30)	25.7 (22-30)	36.0 (35-37.5)	10.25	0.876	11.7	< .001
2. <u>Core diameter</u> after removal of wrapper leaves (mm) Range (25-27.5)	25.7 (25-27.5)	35.6 (35-37)	9.85	0.428	23.6	< .001
3. <u>Head depth</u> from core to top of head (cm) Range (11-12.5)	11.6 (11-12.5)	14.3 (14-14.5)	2.65	0.150	17.7	< .001

7800089

EXHIBIT "E"

Plant Variety Protection Application

No: \_\_\_\_\_

ASSIGNMENT

I, GEORGE C. EMERY, agree and hereby  
do transfer and assign to FERRY-MORSE SEED COMPANY all of my rights, title,  
and interest in and to that certain variety namely, \_\_\_\_\_

HEAD LETTUCE - CALSWEET,

for which application for Plant Variety Protection Certificate has been filed.  
This agreement shall be binding on my administrators, successors and assigns.

In Witness Whereof, I have executed this agreement this

15th day of May, 1978.

BREEDER

*George C. Emery*

DR. GEORGE C. EMERY

## ASSIGNMENT OF INTELLECTUAL PROPERTY

WHEREAS, HARRIS MORAN SEED COMPANY, a corporation duly organized and existing under the laws of the State of Maryland, having its principal place of business at 4511 Willow Road, Suite 3, Pleasanton, California 94588 ("Assignor"), has, pursuant to that certain Bill of Sale and Assignment dated as of June 30, 1997, transferred to FERRY-MORSE SEED COMPANY (CALIFORNIA), a corporation duly organized and existing under the laws of the State of California, having its principal place of business at 555 Codoni Avenue, P.O. Box 4938, Modesto, California 95352-4938 ("Assignee"), all of the intellectual property Assignor had adopted, used and was using as of the effective date of this Assignment, including without limitation, the intellectual property represented by the United States Plant Variety Protection Certificates of Assignor identified on Schedule A hereto (collectively, the "Property"); and

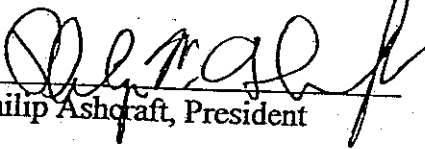
WHEREAS, on the date hereof, Assignee has changed its name to "Harris Moran Seed Company";

NOW, THEREFORE, effective by this instrument as of the close of business on June 30, 1997, and for good and valuable consideration, receipt of which is hereby acknowledged, Assignor hereby assigns to Assignee any and all right, title and interest worldwide in and to the Property and any and all recordations thereof, including, but not limited to, the use of the Property in any manner, all benefit of any and all prior use of the Property, and any and all rights to initiate claims or proceedings for past, present or future infringements of Assignor's rights, title and interest in and to the Property.

Dated: as of June 30, 1997

HARRIS MORAN SEED COMPANY

By:

  
Philip Ashcraft, President

CERTIFICATE OF AMENDMENT  
OF THE  
ARTICLES OF INCORPORATION  
OF

FERRY-MORSE SEED COMPANY (CALIFORNIA)  
(a California corporation)

1400010

ENDORSED  
FILED

In the office of the Secretary of State  
of the State of California

JUN 30 1997

*Bill Jones*  
BILL JONES, Secretary of State

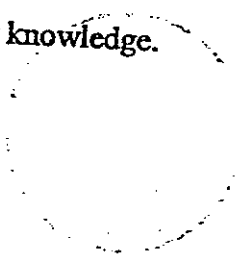
To the Secretary of State  
State of California

Pursuant to the provisions of the General Corporation Law of the State of California, the undersigned officers of FERRY-MORSE SEED COMPANY (CALIFORNIA), a California corporation (the "Corporation"), do hereby certify as follows:

1. The name of the Corporation is Ferry-Morse Seed Company (California).
2. Article One of the Corporation's Articles of Incorporation, which relates to the name of the Corporation, is hereby amended in its entirety to read as follows:
  - One. The name of this Corporation is:  
HARRIS MORAN SEED COMPANY.
3. The amendment herein provided for has been approved by the Corporation's Board of Directors.
4. The amendment herein provided for was approved by the written consent of the Corporation's sole shareholder in accordance with the provisions of Section 902 of the California General Corporation Law. The total number of outstanding shares of the corporation is 5,000.

IN WITNESS WHEREOF, each of the undersigned does hereby declare under the penalty of perjury that he or she signed the foregoing Certificate of Amendment as of June 30,

1997, in the Town of Modesto, State of California, in the official capacity set forth beneath his or her signature and that the statements set forth in this certificate are true of his or her own knowledge.

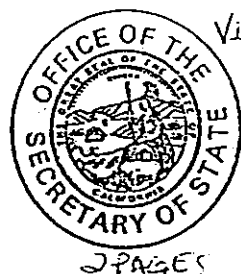
  
Yves Queste  
Yves Queste, President

Helen Andritsakis  
Helen Andritsakis, Secretary

A493976

State of California

SECRETARY OF STATE



I, *BILL JONES*, Secretary of State of the State of California, hereby certify:

That the attached transcript has been compared with the record on file in this office, of which it purports to be a copy, and that it is full, true and correct.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this

JUN 30 1997



*Bill Jones*

Secretary of State